

Features

- Low Forward Voltage Drop
- Excellent High Temperature Stability
- Patented Super Barrier Rectifier Technology
- Soft, Fast Switching Capability
- 150°C Operating Junction Temperature

Mechanical Data

- Case: TO-262
- Case Material: Molded Plastic, UL Flammability Classification Rating 94V-0
- Terminals: Matte Tin Finish annealed over Copper leadframe. Solderable per MIL-STD-202, Method 208 ②③
- Marking Information: See Page 2
- Ordering Information: See Page 2
- Weight: 1.355 grams (approximate)

Maximum Ratings @T_A = 25°C unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load.
For capacitance load, derate current by 20%.

Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V _{RRM} V _{RWM} V _{RM}	150	V
RMS Reverse Voltage	V _{R(RMS)}	106	V
Average Rectified Output Current	I _O	10	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I _{FSM}	100	A

Thermal Characteristics @T_A = 25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Maximum Thermal Resistance (per leg) Thermal Resistance Junction to case (Note 3)	R _{θJC}	2.2	°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	-55 to +150	°C

Electrical Characteristics @T_A = 25°C unless otherwise specified

Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 1)	V _{(BR)R}	150	-	-	V	I _R = 0.25mA
Forward Voltage Drop (per leg)	V _F	-	0.69	0.92 0.79	V	I _F = 5A, T _J = 25°C I _F = 5A, T _J = 125°C
Leakage Current (Note 1)	I _R	-	-	0.25 25	mA mA	V _R = 150V, T _J = 25°C V _R = 150V, T _J = 125°C

- Notes:
1. Short duration pulse test used to minimize self-heating effect.
 2. EU Directive 2002/95/EC (RoHS). All applicable RoHS exemptions applied. Please visit our website at http://www.diodes.com/quality/lead_free.html.
 3. Using heatsink (by Black Aluminum, 45mm x 20mm x 12mm)

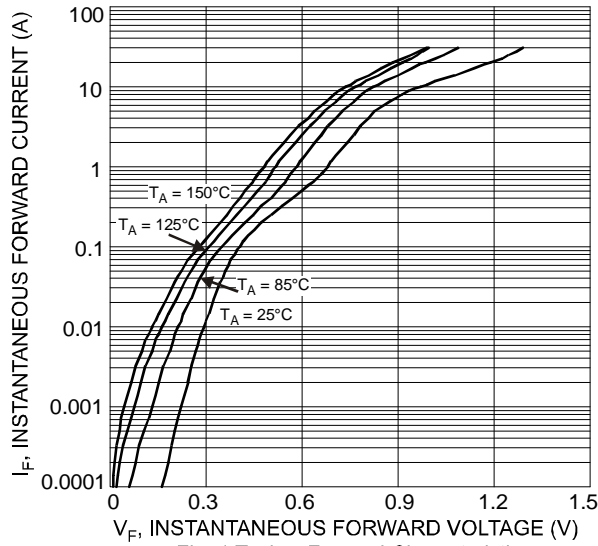


Fig. 1 Typical Forward Characteristics

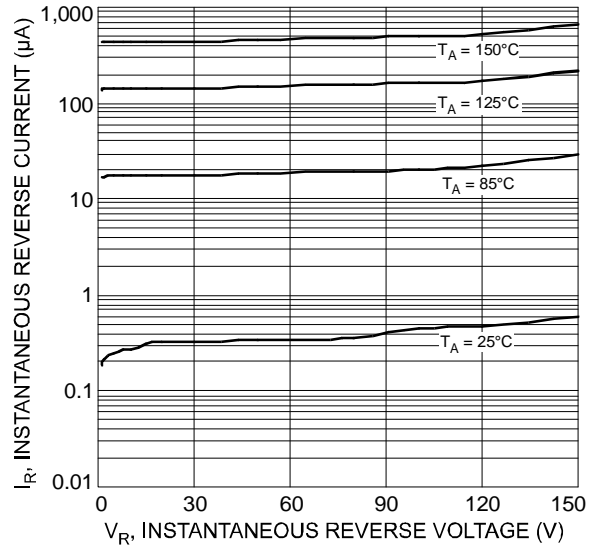


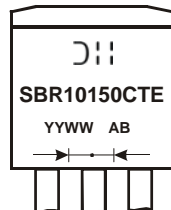
Fig. 2 Typical Reverse Characteristics

Ordering Information (Note 4)

Part Number	Case	Packaging
SBR10150CTE	TO-262	50 pieces/tube

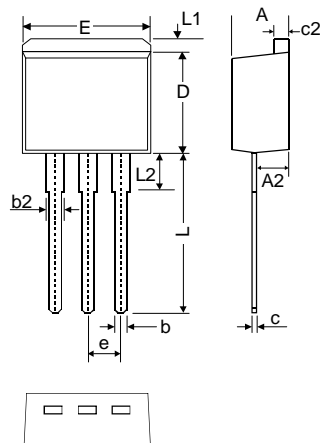
Notes: 4. For packaging details, go to our website at <http://www.diodes.com/datasheets/ap02007.pdf>.

Marking Information



SBR10150CTE = Product Type Marking Code
AB = Foundry and Assembly Code
YYWW = Date Code Marking
YY = Last two digits of year (ex: 08 = 2008)
WW = Week (01-52)

Package Outline Dimensions



TO-262			
Dim	Min	Max	Typ
A	4.06	4.83	4.57
A2	2.03	2.79	2.67
b	0.64	0.99	-
b2	1.14	1.40	1.24
c	0.35	0.74	-
c2	1.14	1.40	1.27
D	8.64	9.65	8.70
E	9.65	10.29	10.11
e	2.54 Typ		
L	12.70	14.73	13.60
L1	-	1.67	-
L2	-	4.00	-
All Dimensions in mm			

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SBR10150CTE

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